

What is claimed:

1. An affinity-tag labeled sublancin peptide comprising a chimeric polypeptide comprising a sublancin peptide, an amino acid spacer attached to the C-terminus of the sublancin peptide, and an affinity tag attached to the spacer.
2. The affinity-tag labeled sublancin peptide of claim 1, wherein the sublancin peptide is obtained from *Bacillus subtilis*.
3. The affinity-tag labeled sublancin peptide of claim 2, wherein the sublancin peptide is obtained from *Bacillus subtilis* strain 168.
4. The affinity-tag labeled sublancin peptide of claim 1 or 2, wherein the sublancin peptide comprises amino acid residues 1-37 of SEQ ID No. 2.
5. The affinity-tag labeled sublancin peptide of claim 1, wherein the spacer comprises from 1 to 15 amino acid residues.
6. The affinity-tag labeled sublancin peptide of claim 1, wherein the spacer comprises about 2-5 amino acid residues.
6. The affinity-tag labeled sublancin peptide of claim 1, wherein the affinity tag comprises from 2-10 histidine residues.
7. The affinity-tag labeled sublancin peptide of claim 6, wherein the affinity tag comprises from 2-6 histidine residues.
8. The affinity-tag labeled sublancin peptide of claim 7, wherein the affinity tag comprises about 6 histidine residues.

9. A method for producing an affinity tag labeled sublancin peptide by a host cell comprising the steps of:

- a) providing a host cell;
- b) providing a vector comprising a gene encoding an affinity tag labeled sublancin peptide comprising a sublancin peptide, an amino acid spacer attached to the C-terminus of the sublancin peptide, and an affinity tag attached to the spacer;
- c) transfecting the host cell with the vector;
- d) selecting a transfected host cell;
- e) thereafter, expressing the affinity-tag labeled sublancin peptide; and
- f) purifying the affinity tag labeled sublancin peptide.

10. The method of claim 9, wherein the sublancin peptide comprises amino acid residues 1-37 SEQ ID No. 2.

11. The method of claim 9, wherein the spacer comprises from 1-15 amino acid residues.

12. The method of claim 9, wherein the affinity tag comprises from 2-10 histidine residues.

13. The method of claim 9, wherein the host cell is *Bacillus subtilis*.

14. The method of claim 13, wherein the host cell is *Bacillus subtilis* strain 168.

15. A method of purifying an affinity-tag labeled sublancin peptide from a solution, the peptide comprising a sublancin peptide, an amino acid spacer attached to the C-terminus of the sublancin peptide, and an affinity tag attached to the spacer, and wherein the method comprises contacting the peptide with a solid support having an affinity for the affinity tag.

16. The method of claim 15, wherein the sublancin peptide comprises amino acid residues 1-37 SEQ ID No. 2.

17. The method of claim 15, wherein the spacer comprises from 1-15 amino acid residues.

18. The method of claim 15, wherein the affinity tag comprises from 2-10 histidine residues.

19. The method of claim 15, wherein the solid support is a nickel-coated plastic or magnetic bead.

20. A method for decontaminating a bacterial spore-infected area comprising treating the infected area with a spore-inhibiting effective amount of a peptide according to claim 1.

21. The method of claim 20, wherein the spore-inhibiting effective amount of the sublancin protein is 0.01  $\mu\text{g/ml}$  to 10  $\mu\text{g/ml}$ .

22. The method of claim 20, wherein the bacterial spore is from at least one of *Bacillus*, *Enterococcus*, *Lactococcus*, *Listeria* and *Staphylococcus*.

23. The method of claim 22, wherein the bacterial spore is from *Bacillus anthracis*.